

CUSTOMER NO. 24498
Serial No. 10/511,401

PATENT
PU020117

IFW
21331



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : SEO WEON HEO ET AL.
Serial No. : 10/511,401
Filed : October 14, 2004
For : CONCATENATED EQUALIZER/TRELLIS DECODER
ARCHITECTURE FOR AN HDTV RECEIVER
Art Unit : 2133

INFORMATION DISCLOSURE STATEMENT

- ☒ 1 Pursuant to 37 CFR 1.97(b)
[within 3 months of filing or prior to 1st Office Action]
☐ 2 Certification Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance]
☐ 3 Fee Payment Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance]
☐ 4 Petition, Certification & Petition Fee Payment Pursuant to 37 CFR 1.97(d)
[before issue fee payment]

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following are submitted in the above-identified application in compliance with 37 CFR 1.97 & 1.98:

- ☒ 5 A list of documents on form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document is enclosed herewith.

This paper is submitted in accordance with:

- ☒ 6 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
☐ 7 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
☐ 8 The required certification made in item 11 below; or
☒ 9 The \$180.00 fee specified in 37 CFR §1.17(p) for submission of this Information Disclosure Statement is authorized in item 14 below.
☐ 10 37 CFR § 1.97(d): [before issue fee payment]; and
(a) This is a petition for consideration of the subject Information Disclosure Statement. The petition fee (\$130.00) required by 37 CFR 1.17(i)(1) is authorized in item 14 below. (Direct this letter to "Attention PETITIONS EXAMINER" and if applicable include batch locator information: e.g., "Allowed Files, Batch ___, Date of Allowance ___"), and
(b) The required Certification is stated in item 11 below.

07/18/2006 HMARZ11 00000032 070832 10511401

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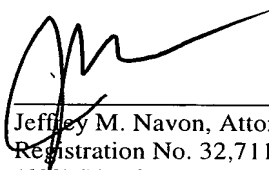
☐ 11 Certification

- ☐ 12 Each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
- ☐ 13 No item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this document after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three (3) months prior to the filing of this Statement.

- ☒ 14 Please charge the applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. 07-0832. An original and one (1) copy of this document is enclosed.

Respectfully Submitted,
SEO WEON HEO ET AL.

BY:


Jeffrey M. Navon, Attorney
Registration No. 32,711
(609) 734-6823

Thomson Licensing Inc.
Patent Operations
P. O. Box 5312
Princeton, New Jersey 08543-5312

Enclosures

July 13, 2006

Certificate Of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in a postage-paid envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Date:

July 13, 2006

Signature


Patricia M. Fedorowycz

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

for FY 2006

JUL 17 2006

☐ Application claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number	10/511,401
Filing Date	October 14, 2004
First Named Inventor	Seo Weon Heo
Examiner Name	
Art Unit	2133
Attorney Docket No.	PU020117

METHOD OF PAYMENT (check all that apply)

CUSTOMER NUMBER: 24498

☐ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify):

☒ Deposit Account: Deposit Account Number 07-0832

Deposit Account Name: THOMSON LICENSING INC.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below

☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17

☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION (All the fees below are due upon filing or may be subject to a surcharge.)

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Independent Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

Small Entity	
Fee (\$)	Fee (\$)
50	25
200	100
360	180
Multiple Dependent Claims	
Fee (\$)	Fee Paid (\$)

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fee Paid (\$)**

_____ - 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Fee for filing Supplemental IDS Statement

Fees Paid (\$)

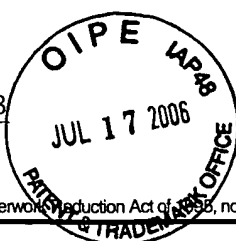
_____ **\$180.00**

SUBMITTED BY

Name (Print/Type)	JEFFERY M. NAVON	Registration No. (Attorney/Agent)	32,711	Telephone	(609) 734-6823
Signature	July 13, 2006				

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

CUSTOMER NO.: 24498



PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known

Application Number	10/511,401
Filing Date	October 14, 2004
First Named Inventor	Seo Weon Heo
Art Unit	2133
Examiner Name	
Attorney Docket Number	PU020117

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ZHUANG, W. ET AL.: "Trellis-Coded CPFSK and Soft-Decision Feedback Equalization For Micro-Cellular Wireless Applications", WIRELESS PERSONAL COMMUNICATIONS, Springer, Dordrecht, NL, vol. 1, no. 4, January 1994, pages 271-285, XP000524510.	
		CHAN, A. M. ET AL.: "A Class of Block-Interactive Equalizers for Intersymbol Interference Channels: Fixed Channel Results", IEEE TRANSACTIONS ON COMMUNICATIONS, vol. 49, no. 11, November 2001, pages 1966-1976, XP011010052.	
		ARIYAVISITAKUL, S. ET AL.: "Joint Coding and Decision Feedback Equalization for Broadband Wireless Channels", PROC. 48th. IEEE VEHICULAR TECHNOLOGY CONFERENCE, vol. VOL 3, CONF. 48, 18 May 1998, pages 2256-2261, XP000903422, Ottawa, Canada.	
		NICOLAS, J. J. ET AL.: "Equalization and Interference Rejection for the Terrestrial Broadcast of Digital HDTV", PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP), New York, IEEE, US, vol. VOL. 4, 27 April 1993, pages 176-179, XP010110760, Minneapolis, USA.	
		BLACKMON, F. ET AL.: "Performance Comparison of Interactive/Integral Equalizer/Decoder Structures for Underwater Acoustic Channels", MTS/IEEE OCEANS 2001. AN OCEAN ODYSSEY. CONFERENCE PROCEEDINGS (IEEE CAT. NO. 01CH37295) MARINE TECHNOL. SOC. , Washington, DC, USA, vol. 4, 2001, pages 2191-2200, vol. XP002373997.	
		SUPPLEMENTARY EUROPEAN SEARCH REPORT DATED 27 MARCH 2006.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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